

IX. CORED MATERIAL

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Five cores are taken during the survey. One of them was sampled from the Koshiki Basin off southwestern Kyushu. Four of them were sampled from Tsushima Basin. A new type of piston corer developed by HONZA was used, which has 8 to 20 meters of core barrel, 62 mm in inner diameter. The cored sites are given in Figure I-1 and in Table I-4.

- St. 740, P104, 250 cm L: The core is composed of clay, silt and very fine sand. Graded features are observed in the silt and very fine sand beds, which suggest turbidites. The core is not described in detail and is not available for sedimentological uses on account of disturbance caused by the extraction trouble.
- St. 759, P103, 489 cm L: Almost all of the core are composed of clayey materials. The lower part of the core is partly intercalated with silty to very fine sandy beds and pumiceous beds, a few centimeters thick (Fig. IX-1).
- St. 760, P104, 545 cm L: Almost all of the core is composed of clayey materials, partly intercalated with very fine sand beds, a few centimeters thick, in the middle and lower column of the core. However, these sandy beds have no graded features and show irregular distribution in their lenslike rather than horizontal bedding and their interbedding disturbance features, which may suggest that the sandy beds do not have a wide distribution, but thin out in a short distance.
- St. 762, P105, 308 cm L: The upper part of the core is composed of clay and the lower part of the core is composed of clay intercalated with thin very fine sand beds a few centimeters thick. The sand beds show the same features as those of the core P104.
- St. 766, P106, 785 cm L: The core is composed of clay, partly intercalated with tuffaceous materials. Convoluted or laminated features are observed in the clay beds of the lower part of the core. The tuffaceous materials are much more abundant than in the other cores.

The depositional circumstances in Tsushima Basin are clearly suggested in the four cores from the Basin. The core from the central part of the Basin (P103) suggests rather calm conditions for the deposition of the sediments which is suggested in the predominant distribution of clayey materials as compared with the other cores. The two cores from the southern margin of the Basin may suggest deposition in and near the slope which is suggested in the thin and irregular distribution of intercalated sandy materials, showing no turbidite features. The sandy materials might have been deposited by gravitational sliding from the adjacent continental slope and might have a horizontally restricted distribution rather than extend over a wide area. The core from the northeastern margin

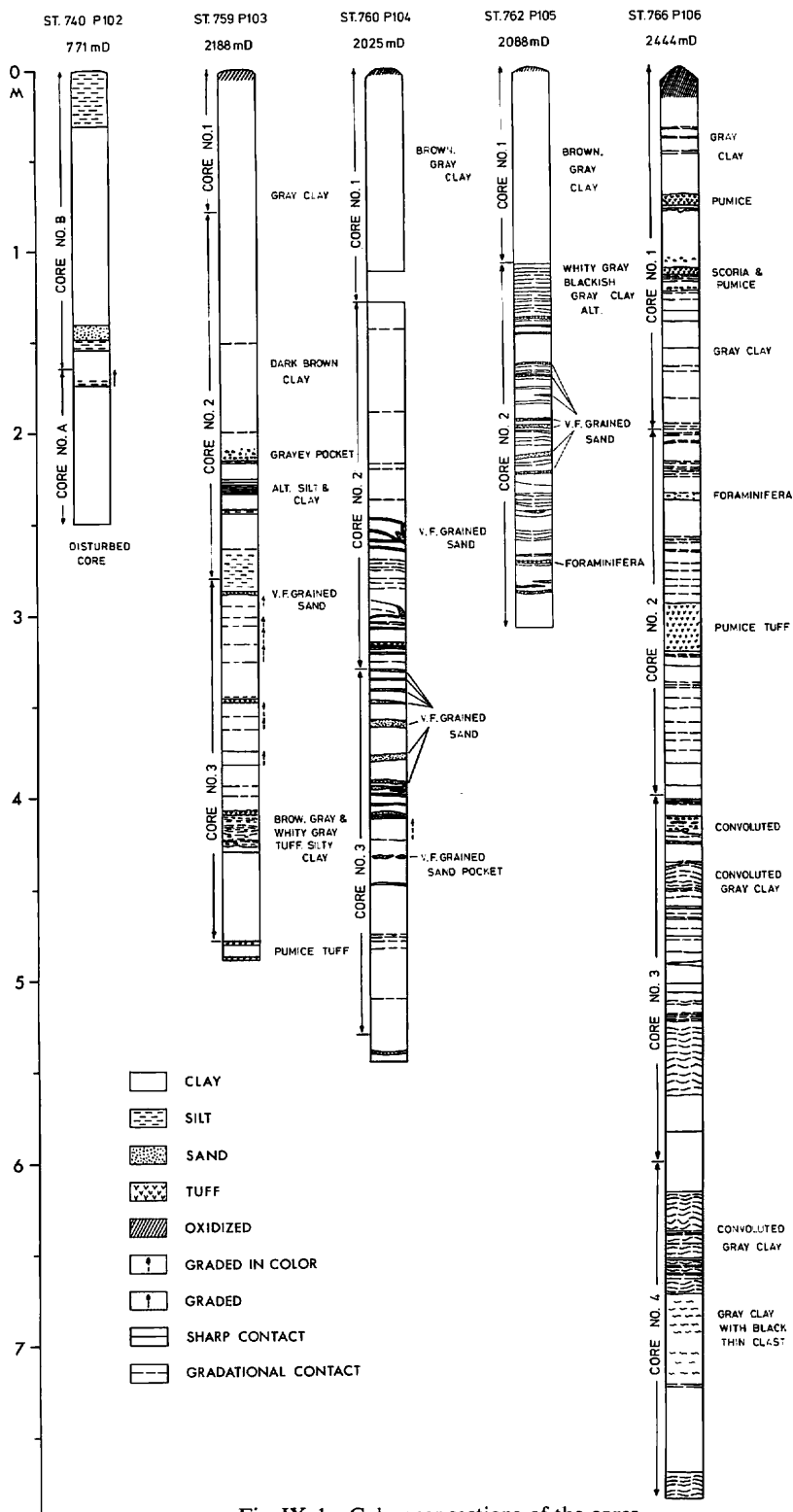


Fig. IX-1 Columner sections of the cores.

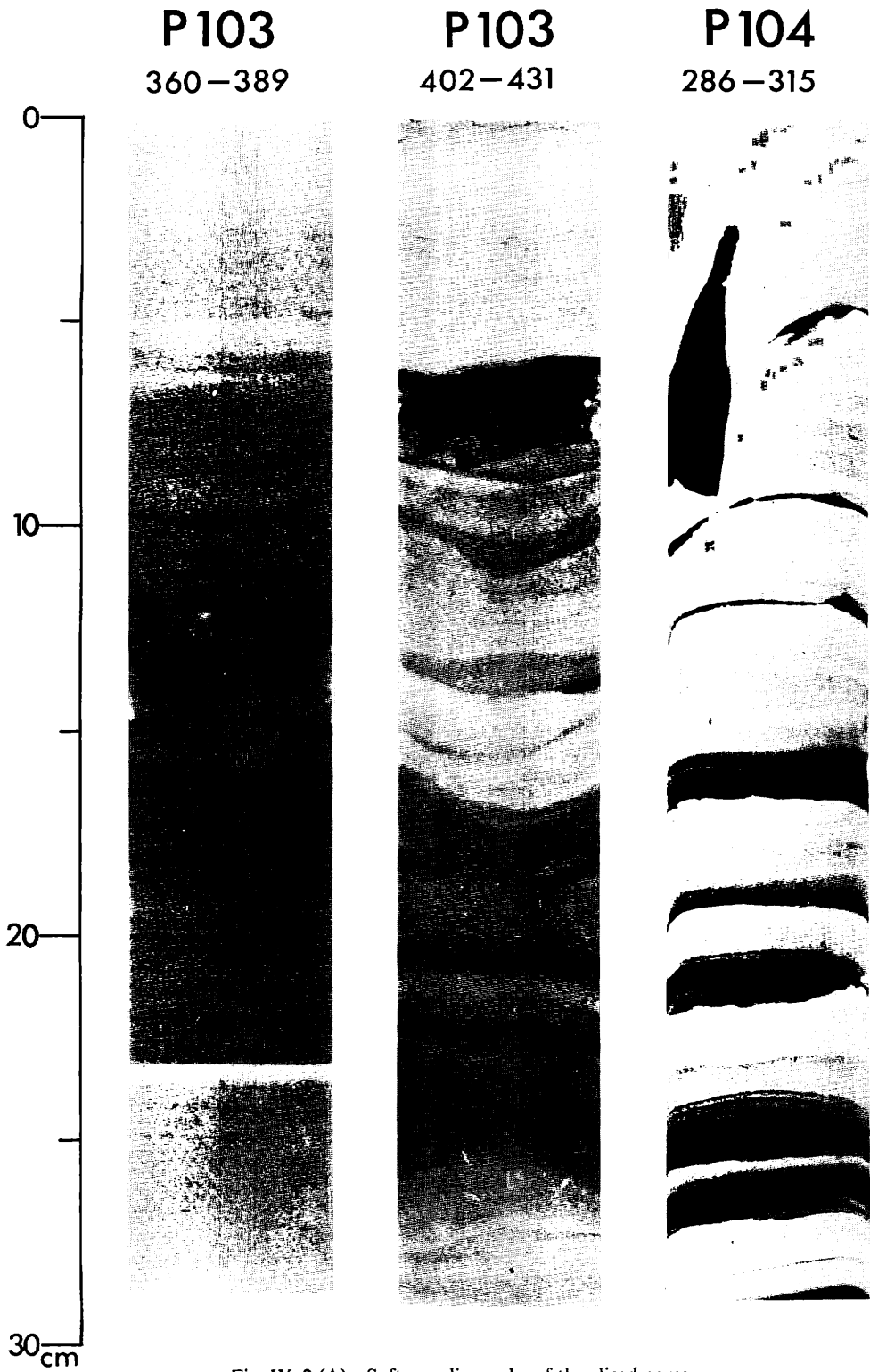


Fig. IX-2 (A) Softex-radiographs of the sliced cores.

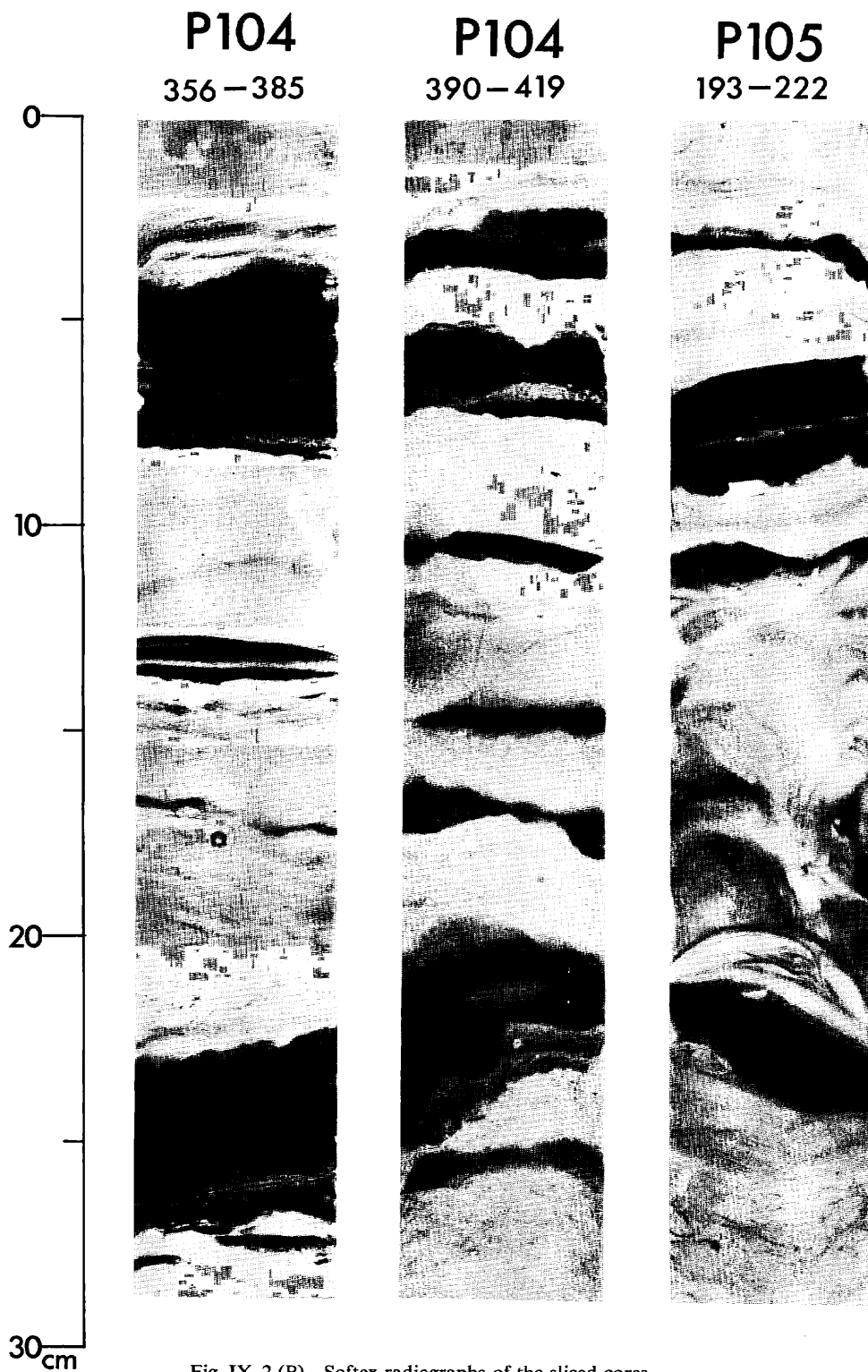


Fig. IX-2 (B) Softex-radiographs of the sliced cores.

of the Basin has a large amount of tuffaceous materials. Convolute or laminated features suggest deposition under mass flow, which also is suggested in the reflection profiles, nevertheless strong currents are not suggested during the deposition of the sediments cored.

These features are well illustrated in Fig. IX-2 in which fine textures which could not be observed in the visual observation are demonstrated.